

D.V.S. PUBLIC SCHOOL

RECOGNISED & AFFILIATED TO CBSE

Class-10th | Holiday Home Work

Note: Make a Register for Holiday Home Work.

COMPUTER

1. Do Sample Paper 1,2,3 in holiday homework Notebook.
2. learn unit - 1,2,3.
3. A3 project on 7 C's Effective communication. OR
Benefits of Meditation (With Picture).
4. Project file: a) Demonstrative Communication is important than verbal communication explain why?
b) Types of speech with examples.
c) Types of sentences with examples.
d) Operating system and its types.

Note: Paste Supportive Pictures on the Given Topic.

SCIENCE

Assignment: Chap-1 Blue Colored Question & Exercise
Chap-2 Blue Colored Question & Exercise / Working Model & Project

MATHS

Assignment: Chapter-8 (Ex.: 8.1, 8.2 & 8.3)

हिन्दी

1. क्षितिज: काव्य खण्ड पाठ:1, गद्य खण्ड पाठ:7,
कृतिका: पाठ-1, हिन्दी व्याकरण: पाठ-1
नोट: छुट्टियों की कॉपी में लिखना है व याद करना है।
2. 'शिवपूजन सहाय' का जीवन-परिचय साहित्यिक विशेषतायें, भाषा शैली, तथा विभिन्न रचनाओं का उल्लेख करते हुए एक फाईल तैयार कीजिए। चित्र सहित
3. किन्ही पाँच उत्पादों पर विज्ञापन तैयार कीजिए। चित्र सहित ए-4 शीट पर
4. औपचारिक व अनौपचारिक पत्र 'तीन-तीन'
5. दिए गये विषयों पर अनुच्छेद लिखें।
क. मन के हारे हार, मन के जीते जीत
ख. दादा बड़ा न भैया, सबसे बड़ा रूपया
ग. अच्छा स्वास्थ्य, महा वरदान
घ. देश पर पड़ता विदेशी प्रभाव

ENGLISH

History Chap-1, Eco Chap-1, Geography Chap-1, D.P. Chap-1
Revise and do in Holiday homework register.

Short and long Q/A

SOME EXTRA QUESTION

1. What is soil erosion? Write some Steps about soil conservation;
 2. Write a note on land use pattern in India.
 3. Differentiate between "coming together" and "Holiday Together" Federation.
 4. what is unitary Government?
 5. Write in detail about forms of Power Sharing ?
 6. What are types of resources ? Write in Details.
 7. Write in details about types of soil.?
- * Make a Project file on Consumer Awareness OR Sustainable Development.
- a) It should be a handwritten project.
 - b) You can use newspaper cutting, maps, graph, diagrams and material from the web
 - c) Follow the sequence as: *Acknowledgment *Index *Content * Bibliography

ENGLISH

First Flight : Chapter-1 & 2 / Food Print : Chapter-1 & 2

Revise all Question/Answer and do in Holiday Home Work Note Book.

Some Extra Question/Answer

1. Why did Lencho's Happiness Change into deep Concern?
2. In The Hearts of all who lived in that solitary house...there was a single hope....What was that?
3. How did the postmaster react when a postman showed him the letter to God?
4. What would you have done if you were in the narrator's place?
5. How Does all sable manage to make Max believe that there is a balcony attached ti his room ? Look Back at his detailed description of it. what makes it a convincing story ?

GRAMMAR

1. Do Exercise unseen Passages 1 to 10.
2. Revise tenses and make a pocket dictionary.
3. Make a Project file on:- Mahatma Gandhi OR Ravindranath Tagore
4. Write Biography and paste the picture about life history.

VERY SHORT ANSWER TYPE QUESTIONS

1. If one zero of the polynomial $P(x) = 5x^2 + 13x + k$ is reciprocal of the other, then value of k is
 (a) 0 (b) 5 (c) $\frac{1}{6}$ (d) 6
2. If α and β are then zeroes of the polynomial $p(x) = x^2 - p(x + 1) - c$ such that $(\alpha + 1)(\beta + 1) = 0$, then $c = \underline{\hspace{2cm}}$.
3. If one zero of the quadratic polynomial $x^2 + 3x + k$ is 2, then the value of k is
 (a) 10 (b) -10 (c) 5 (d) -5
4. If the zeroes of the quadratic polynomial $x^2 + (a + 1)x + b$ are 2 and -3, then
 (a) $a = -7, b = -1$ (b) $a = 5, b = -1$
 (c) $a = 2, b = -6$ (d) $a = 0, b = -6$
5. What should be added to the polynomial $x^2 - 5x + 4$, so that 3 is the zero of the resulting polynomial.
 (a) 1 (b) 2 (c) 4 (d) 5
6. If α and β are the zeroes of the polynomial $f(x) = x^2 + x + 1$, then $\frac{1}{\alpha} + \frac{1}{\beta} = \underline{\hspace{2cm}}$.
7. The number of polynomials having zeroes -3 and 5 is
 (a) Only one (b) Infinite (c) Exactly two (d) at most two
8. If α and β are the zeroes of the polynomial $x^2 - 1$, then the value of $(\alpha + \beta)$ is:
 (a) 2 (b) 1 (c) -1 (d) 0
9. Which of the following is a quadratic polynomial having zeroes $\frac{-2}{3}$ and $\frac{2}{3}$?
 (a) $4x^2 - 9$ (b) $\frac{4}{9}(9x^2 + 4)$ (c) $x^2 + \frac{9}{4}$ (d) $5(9x^2 - 4)$
10. The quadratic polynomial $ax^2 + bx + c, a \neq 0$ is represented by this graph then a is



- (a) Natural no. (b) Whole no. (c) Negative Integer (d) Irrational no.

11. If 1 is one zero of the polynomial $p(x) = ax^2 - 3(a-1)x - 1$, then find the value of 'a'.
12. Find the quadratic polynomial whose zeroes are $(5 + 2\sqrt{3})$ and $(5 - 2\sqrt{3})$
13. If one zero of $p(x) = 4x^2 - (8k^2 - 40k)x - 9$ is negative of the other, then find the values of k .
14. What number should be subtracted to the polynomial $x^2 - 5x + 4$, so that 3 is a zero of polynomial so obtained?
15. How many (i) maximum (ii) minimum number of zeroes can a quadratic polynomial have?
16. What will be the number of real zeroes of the polynomial $x^2 + 1$?
17. If α and β are zeroes of polynomial $6x^2 - 7x - 3$, then form a quadratic polynomial where zeroes are 2α and 2β
18. If α and $\frac{1}{\alpha}$ are zeroes of $4x^2 - 17x + k - 4$, find the value of k .
19. What will be the number of zeroes of the polynomials whose graphs are parallel to (i) y -axis (ii) x -axis?
20. What will be the number of zeroes of the polynomials whose graphs are either touching or intersecting the axis only at the points:
(i) $(-3, 0)$, $(0, 2)$ & $(3, 0)$ (ii) $(0, 4)$, $(0, 0)$ & $(0, -4)$

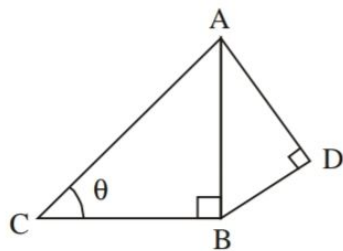
SHORT ANSWER TYPE (I) QUESTIONS

21. For what value of k , $x^2 - 4x + k$ touches x -axis?
22. If the product of zeroes of $ax^2 - 6x - 6$ is 4, find the value of a . Hence find the sum of its zeroes.
23. If zeroes of $x^2 - kx + 6$ are in the ratio 3 : 2, find k .
24. If one zero of the quadratic polynomial $(k^2 + k)x^2 + 68x + 6k$ is reciprocal of the other, find k .
25. If α and β are the zeroes of the polynomial $x^2 - 5x + m$ such that $\alpha - \beta = 1$, find m .
26. If the sum of squares of zeroes of the polynomial $x^2 - 8x + k$ is 40, find the value of k .
27. If α and β are zeroes of the polynomial $t^2 - t - 4$, form a quadratic polynomial whose zeroes are $\frac{1}{\alpha}$ and $\frac{1}{\beta}$.

VERY SHORT ANSWER TYPE QUESTIONS

1. If $\sin \theta = \cos \theta$, find the value of θ
2. Find the value of $\tan^4 \theta + \cot^4 \theta$, if $\sin \theta - \cos \theta = 0$
3. Find the value of $\tan \theta + \cot \theta$, if $\tan^2 \theta - 3 \tan \theta + 1 = 0$
4. If $\tan \theta = \frac{4}{3}$ then find the value of $\frac{\sin \theta + \cos \theta}{\sin \theta - \cos \theta}$
5. If $3x = \operatorname{cosec} \theta$ and $\frac{3}{x} = \cot \theta$ then find $3 \left(x^2 - \frac{1}{x^2} \right)$
6. If $x = a \sin \theta$ and $y = a \cos \theta$ then find the value of $x^2 + y^2$
7. If $\cos A = \frac{3}{5}$, find the value of $4 + 4 \tan^2 A$
8. Find the value of $9 \sec^2 A - 9 \tan^2 A$
9. Express $\sec \theta$ in terms of $\cot \theta$
10. If $x = a \sec \theta$, $y = b \tan \theta$, then find the value of $b^2 x^2 - a^2 y^2$.

11. Find the value of $\frac{1 + \tan^2 \theta}{1 + \cot^2 \theta}$, if $\tan \theta = \frac{4}{3}$.
12. Find the value of $\frac{1 + \tan^2 \theta}{1 + \cot^2 \theta}$
13. Given $\tan \theta = \frac{1}{\sqrt{3}}$, find the value of $\frac{\operatorname{cosec}^2 \theta - \sec^2 \theta}{\operatorname{cosec}^2 \theta + \sec^2 \theta}$. (CBSE, 2010)
14. If $\sqrt{3} \cot^2 \theta - 4 \cot \theta + \sqrt{3} = 0$, then find the value of $\tan^2 \theta + \cot^2 \theta$.
15. If $5 \tan \theta - 4 = 0$, then value of $\frac{5 \sin \theta - 4 \cos \theta}{5 \sin \theta + 4 \cos \theta}$ is
- (a) $\frac{5}{3}$ (b) $\frac{5}{6}$ (c) 0 (d) $\frac{1}{6}$
16. $3 \tan^2 \theta - 3 \sec^2 \theta + 4$ is equal to
- (a) 3 (b) 2
(c) 1 (d) 0
17. In Fig. if $AD = 4$ cm, $BD = 3$ cm and $CB = 12$ cm. then $\cot \theta =$



- (a) $\frac{12}{5}$ (b) $\frac{5}{12}$
(c) $\frac{13}{12}$ (d) $\frac{12}{13}$
18. If $x = 3 \sin \theta + 4 \cos \theta$ and $y = 3 \cos \theta - 4 \sin \theta$ then $x^2 + y^2$ is
- (a) 25 (b) 45 (c) 7 (d) 49

19. If $\sin \theta = \frac{a}{b}$, then the value of $\sec \theta + \tan \theta$ is

- (a) $\sqrt{\frac{a+b}{a-b}}$ (b) $\frac{a+b}{a-b}$ (c) $\sqrt{\frac{b+a}{b-a}}$ (d) $\frac{b+a}{b-a}$

SHORT ANSWER TYPE QUESTIONS (1)

Prove that :

20. $\sec^4 \theta - \sec^2 \theta = \tan^4 \theta + \tan^2 \theta$

21. $\sqrt{\frac{1+\sin \theta}{1-\sin \theta}} = \tan \theta + \sec \theta$

22. If $x = p \sec \theta + q \tan \theta$ & $y = p \tan \theta + q \sec \theta$ then prove that $x^2 - y^2 = p^2 - q^2$

23. If $7 \sin^2 \theta + 3 \cos^2 \theta = 4$ then show that $\tan \theta = \frac{1}{\sqrt{3}}$

24. Find the value of $\cos \theta$, if $\sec \theta + \tan \theta = 5$

25. If $3 \cot A = 4$, find the value of $\frac{\operatorname{cosec}^2 A + 1}{\operatorname{cosec}^2 A - 1}$.

26. Find the value of $\tan^3 \theta + \cot^3 \theta$, if $\tan \theta + \cot \theta = 2$.

27. Find the value of $\tan \theta$, if $\sin \theta + \cos \theta = \sqrt{2} \cos \theta$.

(CBSE 2011)

28. In $\triangle ABC$, right angled at B, $AB = 5$ cm and $\angle ACB = 30^\circ$. Find BC and AC.

29. Show that : $\frac{1 - \sin 60^\circ}{\cos 60^\circ} = 2 - \sqrt{3}$. (CBSE, 2014)

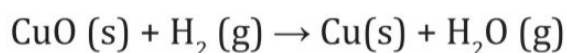
30. Find the value of θ , if $\frac{\cos \theta}{1 - \sin \theta} + \frac{\cos \theta}{1 + \sin \theta} = 4$, $\theta \leq 90^\circ$. (CBSE, 2014)

1. Define combination reaction. Give two examples of combination reaction, which are exothermic in nature.
2. What is decomposition reaction ? Explain with the help of an example.
3. Name and state the law which is kept in mind when we balance a chemical equation.
4. Give one example of each :
 - (a) Chemical reaction showing evolution of gas.
 - (b) Change in colour of a substance during a chemical reaction.
 - (c) Chemical reaction showing change in temperature.
5. What is rancidity ? Write two ways by which it can be prevented.
6. What are two conditions which promote corrosion ?
7. A small amount of Ferrous sulphate is heated in hard glass tube.
 - (a) Write the chemical equation.
 - (b) What type of reaction is taking place or Name the type of reaction.
8. What happens when Zn strip is dipped in CuSO_4 solution ?
Give equation and identify the type of reaction.
9. What is redox reaction ? Write down a chemical reaction representing it.

10. In electrolysis of water :

- (a) Name the gas collected at cathode and anode respectively.
- (b) Why is volume of one gas collected at one electrode is double of another ?
- (c) Why is it necessary to add few drops of dil. H_2SO_4 to water before electrolysis?

11. In the reaction



- (a) Name the oxidized substance.
- (b) Name the reduced substance.
- (c) Name the oxidizing agent.

12. Give reasons :

- (a) White Silver chloride turns grey in sunlight.
- (b) Brown coloured copper powder on heating in air turns into black coloured substance.

13. Compound 'X' decomposes to form compound 'Y' and CO_2 gas. Compound Y is used in manufacturing of cement.

- (a) Name the compounds 'X' and 'Y'.
- (b) Write the chemical equation for this reaction.

14. A metal salt MX when exposed to light splits up to form metal M and gas X_2 . Metal M is used to make ornaments whereas gas X_2 is used in making bleaching powder. The salt MX is used in black & white photography.

- (a) Identify the metal M and gas X_2 .

(b) Identify MX.

(c) Write down the chemical reaction when salt MX is exposed to sunlight.

15. A metal strip X is dipped in blue coloured salt solution YSO_4 . After some time a layer of metal 'Y' is formed on metal strip X. Metal X is used in galvanization whereas metal Y is used for making electric wires.

(a) What could be metal 'X' and 'Y' ?

(b) Name the metal salt YSO_4 .

(c) What type of chemical reaction takes place between X and YSO_4 ?
Write the balanced chemical equation.

Q.16 When potassium Iodide solution is added to a solution of lead nitrate in test tube, a precipitate is formed.

i) State the colour of precipitate.

ii) Name the compound which is precipitated.

iii) Write balanced equation for chemical reaction (CBSE-2015 Comptt)

Q.17 Decomposition reactions require energy either in the form of heat or light or electricity for breaking down of reactions. Write one equation for each type of decomposition reaction where heat, light or electricity is used as form of energy. (CBSE-2018)

Q.18 2 gm of silver chloride is taken in china dish, and china dish is placed in sunlight for sometime. What will be your observation. Write the balanced chemical equation for above reaction and identify the type of reaction. (CBSE-2019)

1. Magnification of plane mirror is + 1. What does it indicate ?
2. A real image, $\frac{1}{5}$ th size of object is formed at a distance of 18 cm from a mirror. What is the nature of the mirror ? Calculate its focal length.
3. Name the type of mirror used in the following and reason for using it :
 - (a) Solar furnace
 - (b) Rear view mirror in a vehicle
4. What should be the position of the object, when a concave mirror is used :
 - (a) as a shaving mirror ?
 - (b) in torches as reflecting mirror ?
5.
 - (a) Define principal focus of a spherical mirror.
 - (b) For what position of the object does a concave mirror form a real, inverted and diminished image of the object ? Draw the ray diagram.
 - (c) An object 4 cm high is placed at a distance of 6 cm in front of a concave mirror of focal length 12 cm. Find the position of the image.
6. For what position of an object, a concave mirror forms a real image equal to size of object ?
7. Identify the nature of mirror and mention two characteristics of image formed when magnification $m = + 6$.
8. Suggest a method to find approximate focal length of a concave mirror.

3 Short Answer Questions

1. Refractive indices of medium A, B and C are 1.3, 1.5 and 1.4 respectively. In which of the following the speed of light will be the :
 - (a) fastest
 - (b) slowest and why?
2. A compound lens is made up of two thin lenses having power + 12.5 D and – 2.5 D. Find the focal length and power of the combination.
3. Light enters from air to kerosene having a refractive index of 1.47. What is the speed of light in kerosene ?
4. A 5 cm tall object is placed perpendicular to principal axis of a convex lens of focal length 10 cm. If the object is placed 30 cm away from the lens, find the position, size and nature of image.
5. A ray travelling in water enters obliquely into glass. Does the light bend towards or away from the normal and why ?
6. An object is placed at the focus of a convex lens. Draw ray diagram to locate the position of image formed.
7. If the image formed by a spherical mirror for all positions of the object placed in front of it is always erect and diminished, what type of mirror is it? Draw a labelled ray diagram to support your answer. (CBSE 2018)
8. State the laws of refraction of light. Explain the term 'absolute refractive index of a medium' and write an expression to relate it with the speed of light in vacuum. (CBSE 2018)
9. What is meant by power of a lens? Write its SI unit. A student uses a lens of focal length 40 cm and another of –20 cm. Write the nature and power of each lens. (CBSE 2018)
10. An object is placed at a distance of 15 cm from a concave lens of focal length 30 cm. List four characteristic (nature, position, etc.) of the image formed by the lens. (CBSE 2017)